## ART 34 ANDT

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## CLAIMS

1. A medium to high voltage power cable comprising a conductor surrounded in order by an inner semi-conducting layer, an insulating layer, and an outer semi-conducting layer, chatacterised in that the insulating layer has a thickness of more than 2 mm and comprises the crosslinked product of a composition that comprises a crosslinkable polymer with hydrolysable silane groups, and a silanol condensation catalyst of formula I

Arso<sub>3</sub>H

(I)

or a precursor thereof, Ar being a benzene ring substi-15 tuted with at least one hydrocarbyl radical such that the total number of carbon atoms of the hydrocarbyl radical(s) is 8-20, or a naphthalene ring substituted with at least one hydrocarbyl radical such that the total number of carbon atoms of the hydrocarbyl radical(s) is 20 4-18, and the catalyst of formula I containing 14-28 carbon atoms in total.

2. A medium to high voltage power cable as claimed in claim 1, wherein the insulating layer has a thickness of more than 5 mm.

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3. A mediam to high voltage power cable as claimed in claim 1 of 2, wherein the composition is hydrophilic.

4. A medium to high voltage power cable as claimed in claim 3, wherein the crosslinkable polymer has hydrophilic groups selected from siloxane, amide, anhydride, carboxylic, carbonyl, hydroxyl, and ester groups.

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5. A medium to high voltage power cable as claimed in any one of the preceding claims, wherein the crystalline part of the polymer is at most 60% by weight.

6. A medium to high voltage power cable as claimed in any one of the preceding claims, wherein the

Printed:13-03-2001

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hydrocarbyl radical in formula I is an alkyl substituent with 10-18 carbon atoms.

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- 7. A medium to high voltage power cable as claimed in claim 6, wherein the alkyl substituent has 12 carbon atoms and is selected from dodecyl and tetrapropyl.
- 8. A composition as claimed in any one of the preceding claims wherein the polymer composition includes 0.0001-3% by weight of silanol condensation catalyst.
- 9. A process of preparing a medium to high voltage power cable according to any one of claims 1-8, in which a conductor is surrounded in order by an inner semi-conducting layer, an insulating layer comprising a crosslinkable polymer with hydrolysable silane groups, and an outer semi-conducting layer to form a cable, c h a r a c t e r i s e d in that the cable is crosslinked in the presence of steam at a superatmospheric pressure.
- 10. A process according to claim 9, wherein the crosslinking is carried out in a vulcanising tube.
- 11. A process according to claim 9 or 10, wherein
  20 the crosslinking is carried out at a pressure of 0.2-2.5
  - 12. A process according to claim 11, wherein the crosslinking is carried out at a pressure of 0.8-1.2 MPa.
  - 13. A process according to any one of claims 9-12, wherein the crosslinking is carried out in the presence of saturated steam.

Printed:13-03-2001